

### 1.3 Function Notation

We now use  $f(x)$  instead of  $y$  ★ Read "f at x" or "f of x"

i.e.  $y = 2x+1$  is  $f(x) = 2x+1$

this notation is useful for such things as describing  
height as a function of time  $h(t)$

see p 18

Feb 3-3:21 PM

Ex 1: Connecting the height of a ball above the ground with time:

A ball was dropped from a height of 200m and it's height above the ground is represented by the following function:

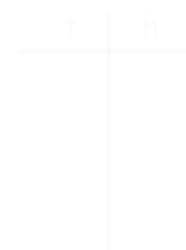
$$h(t) = -5t^2 + 3t + 200$$

How would you find the height of the ball at any time?



Sub in values for  $t$  and solve for  $h$

Note " $t$ " is time so do not sub in neg. values  
Domain should make sense to the question



Feb 3-3:21 PM

Ex 2: If  $f(x) = 2(x - 1)^2 + 3$ , find:

a)  $f(0)$

b)  $f(4)$

c)  $f(\frac{1}{2})$

d)  $f(4) - f(1)$

Sep 8-5:31 PM

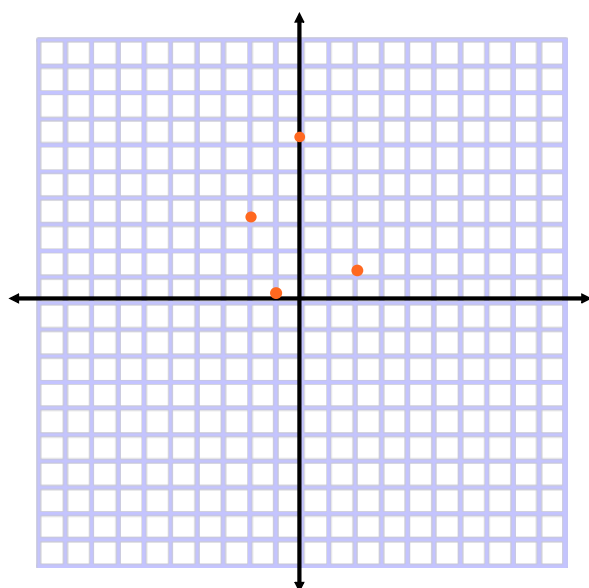
Ex 2 continued: If  $f(x) = 2(x - 1)^2 + 3$ , find:

e)  $f(3m)$

f)  $f(4x)$

Sep 8-5:33 PM

Ex 3 Given the graph of  $f$  evaluate:



FROM THE POINT  
 $(-2, 3)$  ←

$$f(-2) = \underline{\hspace{2cm}}$$

$$f(-1) = \underline{\hspace{2cm}}$$

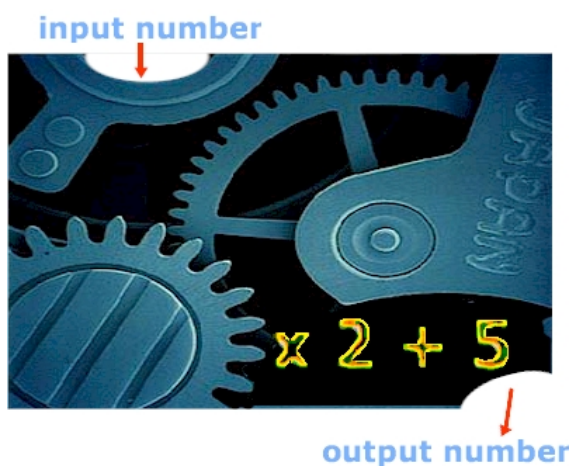
$$f(0) = \underline{\hspace{2cm}}$$

$$f(7) = \underline{\hspace{2cm}}$$

Sep 8-5:33 PM

Hmwk :

P. 32 # 1, 5 ad, 6 abc, 10a (i,vi), 11- 13



Sep 8-5:43 PM